

PTO/SB/21 (02-04)

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Application Number	10/669,066
Filing Date	09/23/2003
First Named Inventor	Ba-Zhong Shen, Ph.D.
Art Unit	2133
Examiner Name	n/a
Attorney Docket Number	BP3036

Total Number of Pages in This Submission

8

**ENCLOSURES (Check all that apply)**

<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached (via credit card payment form PTO-2038) <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input checked="" type="checkbox"/> Preliminary Amendment (4 pages) <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input checked="" type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <b>see remarks below</b>
<b>Remarks</b> The following are also being submitted herewith: 1. Petition under 37 C.F.R. §1.78(a)(3) for the acceptance of an unintentionally delayed claim for priority and Preliminary Amendment (4 pages) 2. Change of Correspondence Address -- Form PTO/SB/122 (09-03) 3. Return Postcard		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	Garlick Harrison & Markison, LLP (USPTO CN 34399) Shayne X. Short, Ph.D. (Reg. No. 45,105)
Signature	
Date	08/21/2004

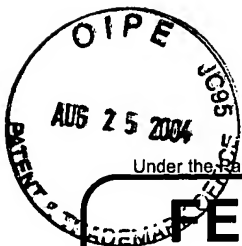
**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Shayne X. Short, Ph.D. (Reg. No. 45,105)	
Signature		Date 08/21/2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/17 (10-03)

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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)**1,330.00****Complete if Known**

Application Number	10/669,066
Filing Date	09/23/2003
First Named Inventor	Ba-Zhong Shen, Ph.D.
Examiner Name	n/a
Art Unit	2133
Attorney Docket No.	BP3036

**METHOD OF PAYMENT** (check all that apply)☐ Check ☒ Credit card ☐ Money Order ☐ Other ☐ None☐ Deposit Account:Deposit  
Account  
Number  
Deposit  
Account  
Name

50-2126

Garlick Harrison &amp; Markison LLP

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee  
to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					(\$) <b>0</b>

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

		Extra Claims		Fee from below		Fee Paid
Total Claims	<input type="text"/>	-20** =	<input type="text"/>	X	18	<input type="text"/>
Independent Claims	<input type="text"/>	-3** =	<input type="text"/>	X	86	<input type="text"/>
Multiple Dependent						<input type="text"/>

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)**0**

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION** (continued)**3. ADDITIONAL FEES**

Large Entity | Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design annulation	
Other fee (specify) _____					1330

Petition fee for Acceptance of an unintentionally delayed claim for priority as set forth in section 1.17(i)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)**1330****SUBMITTED BY**

(Complete if applicable)

Name (Print/Type)	Shayne X. Short, Ph.D.	Registration No. (Attorney/Agent)	45,105	Telephone	(512) 825-1145
Signature		Date	08/21/2004		

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



**PATENT APPLICATION  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Inventor(s):** Ba-Zhong Shen, Ph.D.,  
Hau Thien Tran, and  
Dr. Kelly Brian Cameron

**Examiner:** n/a

**Application Serial No:** 10/669,066

**Art Group:** 2133

**Application Filing Date:** 09/23/2003

**Confirmation No:** 2725

**Patent No:** n/a

**Attorney Docket No:** BP3036

**Patent Issue Date:** n/a

**Title:** Variable modulation with LDPC (Low Density Parity Check) coding

Date: Saturday, August 21, 2004 (08/21/2004)

Mail Stop Petition  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

(1) PETITION UNDER 37 C.F.R. §1.78(a)(3) FOR ACCEPTANCE OF  
UNINTENTIONALLY DELAYED CLAIM FOR PRIORITY UNDER 35 U.S.C. §120  
AND  
(2) PRELIMINARY AMENDMENT

Dear Sir or Madam:

(1) PETITION UNDER 37 C.F.R. §1.78(a)(3) FOR ACCEPTANCE OF  
UNINTENTIONALLY DELAYED CLAIM FOR PRIORITY UNDER 35 U.S.C. §120

The Applicant hereby petitions under 37 C.F.R. §1.78(a)(3) for the acceptance of an unintentionally delayed claim for priority under 35 U.S.C. §120 in the above-referenced application.

The Applicant asserted the priority claims in the above-referenced patent application within the original filing, but the Applicant unintentionally asserted those priority claims in a manner that was not in compliance with 35 U.S.C. §120 and 37 C.F.R. §1.78(a)(2). The Applicant hereby amends those priority claims to bring them into compliance with 35 U.S.C. §120 and 37 C.F.R. §1.78(a)(2).

The Applicant herewith submits a preliminary amendment to amend the originally-submitted priority claim so that it complies with 35 U.S.C. §120 and 37 C.F.R. §1.78(a)(2);

the Applicant herewith submits the surcharge set forth in §1.17(t); and

the Applicant hereby states that the entire delay between the date the claim was due under 37 C.F.R. §1.78(a)(1)(ii) and the date the claim was filed (i.e., brought into compliance in this filing) was unintentional.

The Applicant respectfully requests that the Examiner enter the "CROSS REFERENCE TO RELATED PATENTS/PATENT APPLICATIONS" section as amended below.

(2) PRELIMINARY AMENDMENT

On page 1, starting at line 3, and continuing onto page 2 of the originally filed written specification, please amend the "CROSS REFERENCE TO RELATED PATENTS/PATENT APPLICATIONS" section as follows:

**"CROSS REFERENCE TO RELATED PATENTS/PATENT APPLICATIONS**

The present U.S. Utility Patent Application claims priority pursuant to 35 U.S.C. § 119(e) to the following U.S. Provisional Patent Applications which are hereby incorporated herein by reference in their entirety and made part of the present U.S. Utility Patent Application for all purposes:

1. U.S. Provisional Patent Application Serial No. 60/384,698, entitled "Variable code rate and signal constellation turbo trellis coded modulation codec," (Attorney Docket No. BP 2333), filed May 31, 2002 (05/31/2002), pending.

2. U.S. Provisional Application Serial No. 60/478,690, "Coded modulation with LDPC (Low Density Parity Check) code using variable maps and metric updating," (Attorney Docket No. BP3036), filed June 13, 2003 (06/13/2003), pending.

The present U.S. Utility Patent Application is also a **continuation-in-part (CIP)** ~~of also claims priority pursuant to 35 U.S.C. § 120 to~~ the following U.S. Utility Patent Application which is hereby incorporated herein by reference in its entirety and made part of the present U.S. Utility Patent Application for all purposes:

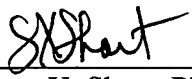
1. U.S. Utility Application Serial No. 10/264,486, entitled "Variable code rate and signal constellation turbo trellis coded modulation codec," (Attorney Docket No. BP 2333), filed October 4, 2002, pending, which claims priority pursuant to 35 U.S.C. § 119(e) to U.S. Provisional Patent Application Serial No. 60/384,698, entitled "Variable code rate and signal constellation turbo trellis coded modulation codec," (Attorney Docket No. BP 2333), filed May 31, 2002 (05/31/2002), pending.

The following U.S. Utility Patent Application, being filed concurrently, is hereby incorporated herein by reference in its entirety and made part of the present U.S. Utility Patent Application for all purposes:

1. U.S. Utility Patent Application Serial No. 10/669,177, entitled "Metric updating when decoding LDPC (Low Density Parity Check) coded signals and LDPC coded modulation signals," (Attorney Docket No. BP3036.1), filed September 23, 2003 (09/23/2003), pending."

The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes that such a communication would advance the prosecution of the present patent application, or if the Examiner has any additional questions or concerns.

RESPECTFULLY SUBMITTED,

By:   
Shayne X. Short, Ph.D.  
Reg. No. 45,105  
Direct Phone: (512) 825-1145  
Direct Fax No. (512) 394-0054

**GARLICK HARRISON & MARKISON LLP**

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